

# TOWARDS PUTRAJAYA GREEN CITY 2025

## Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme & PGC2025 updates

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# Presentation Outline

- Background of Putrajaya & PGC2025
- Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme
- Updates on Putrajaya's initiatives on Transportation & Mobility
- Way Forward





# Background of Putrajaya & PGC2025

- **Putrajaya** is the Federal Government Administrative Centre of Malaysia
- The planning and development of the city based on sustainable development principles has set the solid groundwork for the city's transformation towards becoming a **sustainable low carbon green city** by 2025.
- **Putrajaya Green City 2025** (PGC2025 ) is an action plan for the city towards this target.
- **PGC2025** has set an ambitious target to reduce Putrajaya's citywide GHG emissions by **60%** from its business as usual level in 2025 which corresponds to about 2,400 ktCO<sub>2</sub> by implementing the necessary identified actions.



# Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme

- Putrajaya's GHG emissions inventory for 2014 indicates that the building sector contributes the highest in terms of city's GHG emissions at **67%** (1,038 ktCO<sub>2</sub>eq)
- Huge potential to reduce GHG emissions from this sector has been identified by focusing on implementing **energy conservation** and **energy efficiency** practices in buildings
- For this purpose PJC will be introducing the **Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme** specifically targeted to reduce GHG emissions from the building sector.
- A research team consisted of **PJC, Universiti Teknologi Malaysia, Kyoto University, National Institute for Environmental Studies, Tokyo Metropolitan Government, Mizuho Information and Research Institute** was established to design and develop of the programme for Putrajaya.
- The programme is based on the experience of Tokyo Metropolitan Government in implementing **Carbon Reduction Reporting Programme in Tokyo**



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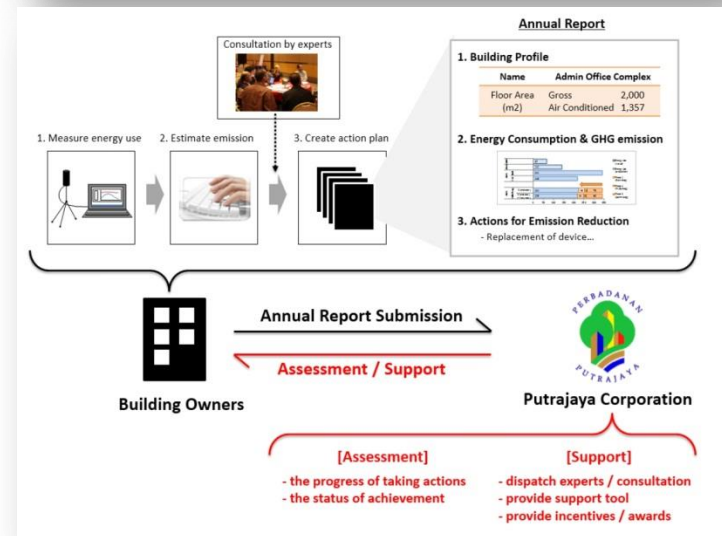


# Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme

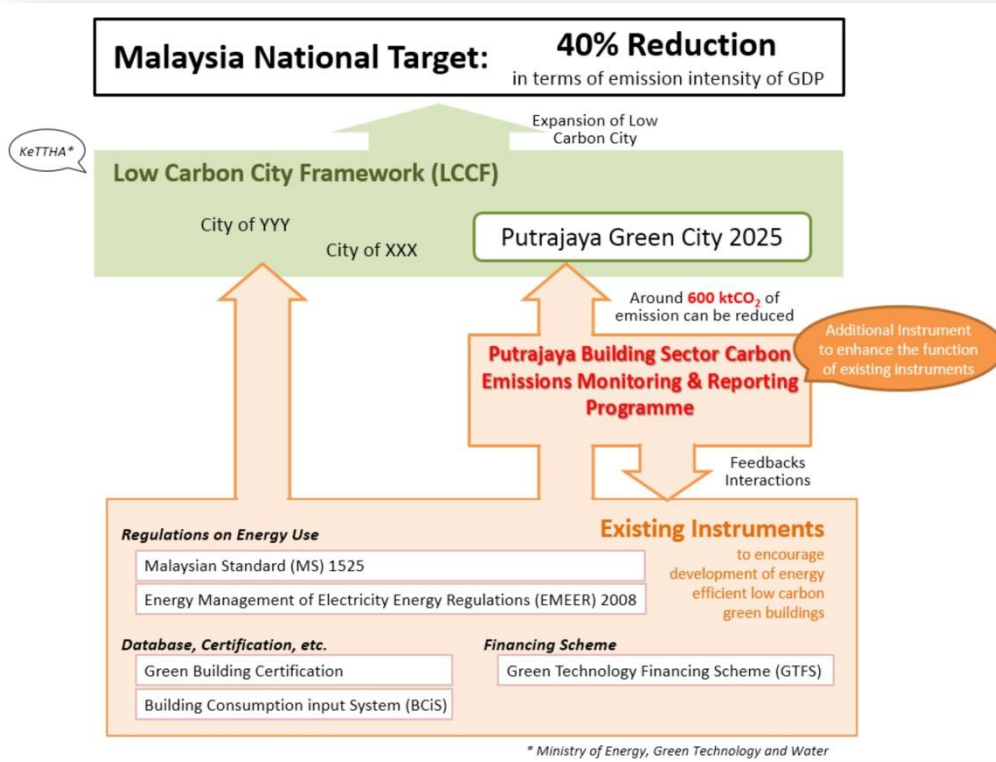
## Overview of the Programme:

- The scope of the programme covers **all non residential buildings**, categorised into 2 groups, **mandatory** for **large scale** buildings (GFA over 10,001 m<sup>2</sup>) and **voluntary** for **medium and small scale** buildings (GFA below 10,000 m<sup>2</sup>)
- The total number of buildings covered by the programme under the mandatory requirement is expected to reach **67%**, covering **95%** of total planned GFA of buildings.
- The programme will require **building owners to report** their building's profile, energy consumption, GHG emission and action plan to reduce GHG emissions from their building operations **annually to PJC**.
- This programme adopts **Building Energy Index (BEI)** as an indicator and targets a reduction of **28%** of average BEI in 2025 (272 kWh/m<sup>2</sup>) from the current 2014 BEI (381kWh/m<sup>2</sup>)
- The programme is anticipated to help reduce the GHG emissions from the building sector by **approximately 600 to 700ktCO<sub>2</sub>** by 2025 resulting in **savings** of about **MYR500 million** in terms of **reduction of energy use** in buildings in Putrajaya.

Building Category	Coverage in number of buildings		Total planned number of buildings
	Large scale buildings (GFA over 10,001 m <sup>2</sup> )	Medium & Small scale buildings (GFA below 10,000 m <sup>2</sup> )	
Government	98 (91%)	10 (9%)	108
Public Amenities & Facilities	62 (53%)	54 (47%)	116
Commercial	120 (62%)	73 (38%)	193
<b>Total</b>	<b>280 (67%)</b>	<b>137 (33%)</b>	<b>417</b>

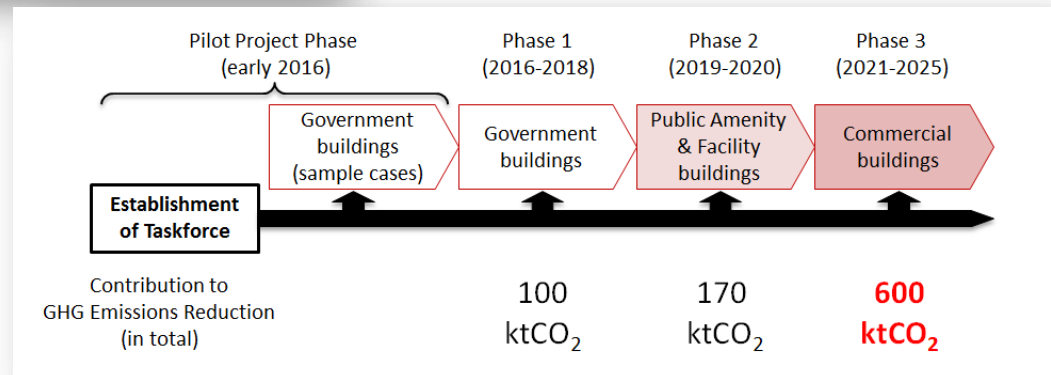


# Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme



- Implementation in **collaboration with various ministries and agencies**, such as the Ministry of Federal Territories, Ministry of Energy, Federal Territory of Putrajaya Public Works Department, Sustainable Energy Development Authority and others
- The programme plays a major role in achieving the PGC2025 target & will contribute towards the achievement of the national target of 40% reduction in carbon intensity in 2020
- Programme diffusion to other cities in Malaysia through LCCF programme to encourage the development of energy efficient low carbon green buildings in Malaysia

Programme implementation schedule



# Updates on Putrajaya's initiatives on Transportation & Mobility

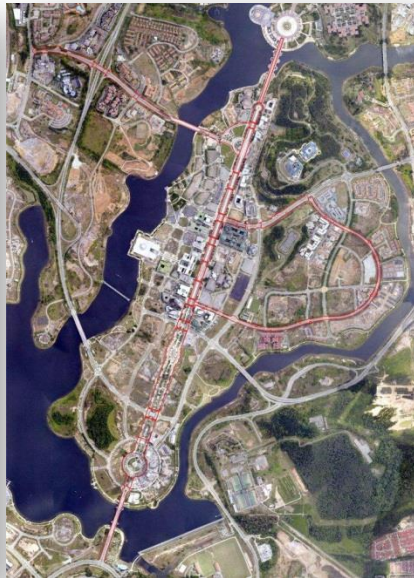
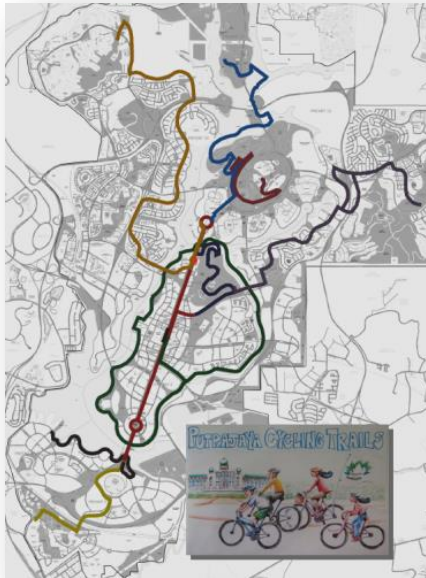
## Putrajaya Bikeable City : Status Updates

### The upgrading of cycling and walking infrastructure

- The first phase of the programme involves **24km** of existing cycleways and walkways in the city centre and part of the residential precincts.
- Operational in **early 2016**.
- Coverage to be extended in phases to cover the main routes linking other residential precincts to the city centre and along the promenade of Putrajaya lake.

### Promotion of Putrajaya Cycling Trails

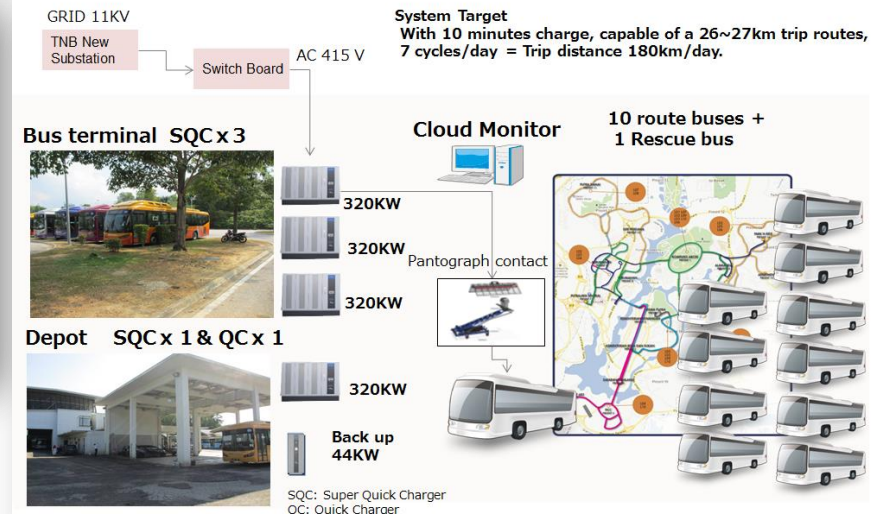
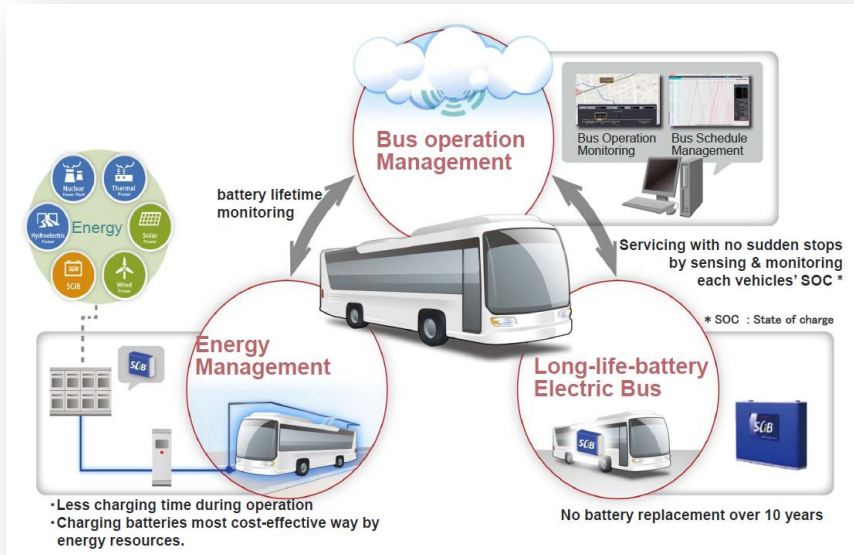
- To promote cycling as leisure & recreational activity within the city, **9 cycling trails** has been identified and mapped.
- Categorized by their difficulty levels; **easy trails**, **moderate trails** and **challenging trails**.
- PJC hope that cycling for leisure, health and fitness will be encouraged further resulting in a take up in **utility and commuter cycling** in the long term.





# International Demonstration Project for EV Buses with Super Quick Charging system in Putrajaya

- A project between PJIC & NEDO
- Operational by end of 2016





# Way Forward

- With the implementation of PGC2025, the city of Putrajaya is a step ahead in the right direction in its transformation into a **sustainable low carbon green city by 2025**
- **Putrajaya Building Sector Carbon Emissions Monitoring & Reporting Programme** will strengthen efforts to reduce the city's GHG emissions & contribute towards the national target of 40% reduction in CO<sub>2</sub> intensity by 2020
- The programme can be diffused for **implementation in other cities** in Malaysia with the strong support of relevant government ministries and other agencies
- Efforts to reduce GHG emissions from the **transportation sector** needs to be **intensify** via **promotional programmes** and introduction of public bus service using **EV buses** and **non motorised** transportation mode & mobility
- PJC welcomes the support of international organisations & agencies in expediting the implementation of programmes to reduce Putrajaya's GHG emissions and pledge to strengthen our efforts towards **Putrajaya Green City 2025**







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ASIA-PACIFIC INTEGRATED MODEL

 **環境省**  
Ministry of the Environment



Ministry of Federal  
Territories

**KETTHA**  
KEMENTERIAN TENAGA  
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# Thank you



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